

ERI

RESIDENTIAL PROPERTIES
FINAL REPORT
FORMER SANDY SMELTERS SITE
SANDY, UTAH

Prepared for

ASARCO INCORPORATED
3422 South 700 West
SALT LAKE CITY, UTAH 84119

Prepared by

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Date

December, 1998



FORMER SANDY SMELTERS SITE
SANDY, UTAH

RESIDENTIAL PROPERTIES SOILS REMOVAL
FINAL REPORT

December 1998

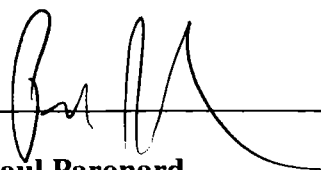
Prepared For:

ASARCO Incorporated
3422 South 700 West
Salt Lake City, UT 84119

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201 K Street
P.O. Box 39
Smelterville, ID 83868

Approved By:


Paul Paronard

23 Dec 98

Date

Remedial Project Manager

This Closure Report for Residential Yards Removal Sandy, Utah, has been prepared by Environmental Reclamation, Inc. (ERI) for ASARCO, Inc. by Mr. Adolph Timm, On-Site Project Manager. The report was reviewed by Mr. Behzad Mirzayi, Utah Registered Professional Engineer #92-187709-2202.

Prepared by:

Adolph Timm
On-Site Project Manager

Reviewed:

Behzad Mirzayi
Project Manager



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1.0 INTRODUCTION

This report is prepared to fulfill the requirements set forth in the U.S. Environmental Protection Agency (EPA) Unilateral Administrative Order (UAO) for removal action in connection with Sandy Smelter site No. 08-Y4, Sandy Salt Lake County, Utah, EPA Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act as amended, 42 U.S.C. 9606(a). In accordance with EPA requirements, Environmental Reclamation Inc. (ERI) has prepared this final report detailing all major tasks and critical data regarding volumes, areas, and depth associated with material excavated, transported, and placed in the Murray Smelter On-Site disposal area. Section 2.0 summarizes elements of the removal action. Section 3.0 provides the activities included in the implementation of engineering control measures, material handling measures, disposal of impacted soil, and site restoration. Section 4.0 describes operations and maintenance measures during the removal operations.

Resource Management Consultants (RMC) provided project management as Asarco's authorized representative. RMC performed project oversight, and quality assurance/quality control, review of submittals to the EPA.

2.0 REMOVAL ACTION

The removal action was conducted in accordance with "Sandy Smelters Workplan", prepared by Resource Management Consultants (RMC), dated June 25, 1998. In accordance with the work plan, removal of surface soil was conducted at 15 residential properties located within the historical Sandy Smelter area of Sandy, Utah. The fifteen properties are located in an area bounded on the north by the south side of 8800 South, going east to 150 East, south to 8920 South, and west to 60 East. Table 1 presents the designation number, address, owner, and phone numbers of each property included in the removal action. The removal action was conducted to depths of 6 inches and 18 inches based upon lead concentrations that had been previously determined by EPA.

TABLE 1. LOT IDENTIFICATION

Designation Number	Address	Owner
SO725	8821 South 120 East	Dominic Priano – 561-3916
SO763	8831 South 90 East	Elverda Peterson – 566-0270
SO765	8851 South 120 East	Sterling Jenson – 255-0481
SO766	8852 South Center Street	Lance Windsor – 685-2483
SO831	8871 South 90 East	Elverda Peterson – 566-0270
SO833	8869 South 120 East	Bernice Vigil – 255-5084
SO834	8860 South Center Street	Kaylynn Paal – 255-8783
SO843	8891 South 60 East	Susan Snow – 566-6718
SO845	8889 South 90 East	Arthur Henseler – 569-1347
SO846	104 East 8880 South	Iona Pangos – 255-7728
SO849	8893 South 120 East	Leendert Visser – 255-0398
SO851	142 East 8880 South	Tracy Cowdell – 566-4287
SO866	8920 South 71 East	Jesse Cervantes – 944-8347
SO869	8912 South 120 East	Lindy Barton – 255-0681
SO870	8909 South 120 East	Angeline Kreger – 566-3503

Removal action activities included initial site mapping, site-specific removal design, site preparation, air monitoring, and soil sampling and analysis for clean fill. All site soil sampling activities were previously conducted by EPA.

Soils at or above removal action levels identified in the work plan were removed and taken to the Murray Smelter on-site disposal area. Cleanup levels for this removal action were 1200 ppm lead as an average in the zone or property in surface soils (0-6"); and 1800 ppm lead as an average in the zone or property in subsurface soils (6-18").

2.1 INITIAL SITE MAPPING

Prior to the start of removal activities, Anderson Engineering, Inc. performed initial site mapping on 12 sites, and ERI performed initial site mapping, reconnaissance, and surveying on the remaining 3 properties. The data from this mapping phase were used to develop drawings depicting all structures and improvements on each property. As part of the site mapping the extent of grass and type of all shrubs/ trees were documented. Other pertinent site improvements such as concrete and asphalt structures, fences, sprinkler heads, water meters, manhole covers, utility lines, telephone line junction boxes (indicating buried cables), and debris within each residence were inventoried and depicted on the maps. The pre-removal conditions at each residence were photographically documented prior to the start of the removal action.

2.2 SITE-SPECIFIC REMOVAL DESIGN

The information collected during initial site mapping was used to develop a site-specific removal design for each property. The design included a description of the pre-removal condition at each lot. A residence-specific plan was developed formulating a removal approach for each residence. The specific removal design for each lot is presented in Appendix A.

ERI met with each property owner and presented the design and removal approach. During these meetings, all of the owners' concerns and considerations were noted and included in the final design. Each property owner was requested

to review the final design package and sign the design document approving the removal action.

2.3 SITE PREPARATION

Prior to commencement of removal activities at each lot, the site was prepared in such a manner as to keep the potential for disturbance to residences to a minimum. Site preparation activities included site security, site clearing, and development of a staging area. Preparation consisted of cleaning the lot of any material that the homeowner might have left in the yard. Movable pathways, patios and structures with supports that could be moved were relocated to allow access for removal of impacted soils. Details of the site preparation are provided in the following sub-sections.

2.3.1 SITE SECURITY

Upon commencing removal activities in each lot, a yellow caution tape was placed around the outside perimeter of the lot to deter the general public and home owners from entering the exclusion zone.

2.3.2 SITE CLEARING

During the homeowner meetings for each lot, the foliage of the lot was discussed to determine which trees or shrubs the homeowner wanted removed or protected, and which trees and shrubs the removal contractor determined could be protected. Based on those discussions, a tree-trimming subcontractor was retained to perform necessary tree or shrub removal prior to the beginning of removal activities.

ERI trimmed remaining foliage on the lot, as needed, to improve the health of the remaining trees and shrubbery. Trimming consisted of removing the bottom limbs of any trees and bushes up to a height where the remaining branches and limbs would not be impacted by the removal equipment. ERI also cut out a large portion of visually noticeable dead wood, as well as trimming off limbs that were a potential hazard to the homeowner's property. Tree stumps were also removed during clearing and grubbing activities.

2.4 AIR MONITORING

The removal action was performed in accordance with the Sandy Smelter Workplan Section 4.0 Site Safety. Air monitoring was conducted during all excavation activities. The type and results of this air monitoring program are discussed below.

2.4.1 PERSONAL AIR MONITORING

Personal air monitoring was conducted to measure the exposure of workers to the hazardous constituents associated with the removal activities. Air monitoring was conducted each day that excavation took place. The material being removed contained concentrations of lead above the respective levels. Monitoring for lead in the breathing zone was conducted using a small sampling pump. The pump draws air through a filter cassette placed within the worker's breathing zone. The filter collects airborne particles within the breathing zone of the worker, thus simulating the exposure that the worker is receiving. Criteria for selecting the individual for monitoring were based on maximum potential for exposure. Table 2 lists the air monitoring test results.

TABLE 2. PERSONAL AIR MONITORING TEST RESULTS FOR LEAD

Date	Site	Value	Units
8/4/98	8860 S. Center St.	1.6	Ug/m3
8/4/98	8851 S. 120 East	1.5	Ug/m3
8/6/98	8893 S. 120 East	<0.8	ug/m3
8/6/98	8869 S. 120 East	<0.8	ug/m3
8/7/98	8889 S. 90 East	3.4	ug/m3
8/7/98	8893 S. 120 East	<0.9	ug/m3
8/8/98	8889 S. 90 East	<0.8	ug/m3
8/8/98	8893 S. 120 East	<0.8	ug/m3
8/10/98	104 E. 8880 South	<0.7	ug/m3
8/10/98	104 E. 8880 South	<0.8	ug/m3
8/11/98	8889 S. 90 East	<0.7	ug/m3
8/12/98	8909 S.120 East	<0.7	ug/m3
8/12/98	8920 S. 71 East	<0.7	ug/m3
8/13/98	8912 S. 120 East	<0.8	ug/m3
8/13/98	8909 S.120 East	<0.8	ug/m3
8/14/98	8912 S. 120 East	<0.8	ug/m3
8/14/98	8891 S. 60 East	4.3	ug/m3
8/15/98	8912 S. 120 East	<1.1	ug/m3
8/15/98	8909 S.120 East	2.3	ug/m3
8/17/98	8909 S.120 East	<1.0	ug/m3
8/17/98	8821 S. Center St.	<1.0	ug/m3
8/18/98	8821 S. Center St.	<0.8	ug/m3

The OSHA allowable personnel exposure limit for lead is 50 ug/m3.

3.0 MATERIAL REMOVAL

Removal activities included the implementation of engineering control measures, material handling measures, disposal of impacted soil, and site restoration.

3.1 ENGINEERING CONTROL MEASURES

During removal activities, the impacted soil was continuously dampened to minimize production and migration of dust that may have contained concentrations of lead above the action level. During placement of soil in trucks for hauling to the Murray Smelter on-site Repository, care was taken to place the material into the trucks with as little dust production as possible. This involved wetting the material prior to loading, wetting the material as it was being placed into the truck, and using care with the loading equipment to shorten the distance that the material had to fall into the truck.

Streets and equipment were kept clean and free of impacted soil through decontamination in the staging area and proper loading procedures. Haul trucks were only allowed to drive on clean roads. Runoff was controlled by the site excavation, it was not possible for runoff outside of excavation limits. The streets were routinely cleaned and washed to alleviate any airborne dust production. Removal personnel were required to wear Level D apparel (hardhats, coveralls, gloves, leather boots) to reduce the risk of exposure to the impacted soils and to reduce the risk of injury on the job.

3.2 MATERIAL HANDLING MEASURES

Removal of impacted soil was conducted using a variety of equipment and personnel. Most of the impacted soil was removed using a skid steer loader that loaded the soil into a dump truck, for transport and disposal at the Murray Smelter Repository. A mini-trackhoe and shovels are some of the other equipment used to perform removal of impacted soil. Tree branches and other miscellaneous debris such as old sprinkler systems were hauled to the Trans Jordan Landfill after all soil was thoroughly removed.

3.2.1 MATERIALS HANDLING

Removal activities were carefully conducted to decrease the potential for damage to existing structures such as houses, garages, patios, and concrete sidewalks and driveways. The bulk of contaminated soil and sod was removed using powered equipment. Hand tools were necessary for excavations in sensitive areas such as next to root systems, foundations, and other structures. Soil was removed to the required depths throughout each yard, taking care not to damage supporting structures and root systems of trees and shrubs. This resulted in a tapered "buffer zone" surrounding structures such as fence posts, concrete foundations, and concrete walkways. The method of excavation around large root systems of trees and shrubs was to remove as much soil as practical without damaging root systems. This resulted in a tapered excavation starting at the base of the trunk and extending outward to the end of the root mass growth. The required depth was then excavated from perimeter edges, such as concrete walk ways, foundations, and adjacent permanent structures. Immediately following excavation, a laser level and rod were used to take several readings throughout the entire property. A 6" or 18"

depth was required at each reading (based upon Work Plan) before the excavation was finalized. Sheds with dirt floors were hand excavated. Local utility company locator personnel marked buried utilities on each lot. Most electricity, phone, and cable TV wiring was located aboveground. A few phone lines had to be temporarily removed during the workday to facilitate removal activities, but these lines were reconnected for the evening. Some homeowners had secondary utility lines buried in and along yards that were identified during the homeowner meeting or during daily discussions with the homeowners. Water and sewer lines were buried several feet lower than the depth required by the removal activities. All gas lines were located by hand digging before excavation with larger equipment was authorized.

The materials identified for removal were excavated to a depth of 6 inches or 18 inches below the final grade as determined in the Work Plan. Planter boxes and flowerbeds that homeowners did not want saved were also excavated to the required depth.

3.2.2 QUANTITIES OF MATERIAL REMOVED

Table 3 presents a summary of estimated excavation volumes at each residence, based on haul truck weights.

TABLE 3. QUANTITIES OF MATERIAL REMOVED

Property Number Designation	6 Inch Removal Area (sqft)	18 Inch Removal Area (sqft)	Volume Removed (cubic yards)
869	2015	1332	111.31
866	814	0	15.07
851	1321	1617	114.30
845	4761	0	88.17
765	859	4182	248.24
870	6383	1162	182.76
834	5935	2722	261.13
846	2005	0	37.13
831	0	1818	101.00
763	787	0	14.57
725	2304	0	42.67
843	150	423	26.28
833	1187	1399	99.70
849	4592	506	113.15
766	5624	0	104.15
TOTAL	38737	15161	1559.63

3.3 DISPOSAL

All removed materials were transported to the Murray Smelter On-Site disposal area using highway-type trucks with the loads covered. The Murray Smelter Site was designated by the EPA as the disposal area for all removed soil.

3.4 SITE RESTORATION

The excavated areas were backfilled with topsoil or gravel in areas where homeowners did not want topsoil. Backfill cones were used to confirm the depth of backfill. Cones that were of the height of required excavation were placed in intervals throughout the yard. Backfill was then placed in the yard to the height of the cones. This process added to both the efficiency of the backfill process and also verified the correct excavation and backfill depth.

Concrete flat work was completed where the existing concrete did not provide a sufficient barrier and anywhere that concrete was damaged during the removal process. Fences that required removal during the remediation process to allow access to the site were replaced. Sprinkler systems that were removed were replaced with new systems.

Analytical laboratory tests were completed on all backfill materials including the topsoil, gravel, and sod. The testing was conducted to confirm that backfill material did not contain lead and arsenic concentrations above replacement requirements, specified in the UAO as 100 ppm for Pb, and 25 ppm for As. The test results indicated that concentrations were well below EPA requirements. Table 4 contains the topsoil and backfill analytical test results.

TABLE 4 TOPSOIL AND BACKFILL ANALYTICAL RESULTS

Date Collected	Location	Type of Material	Lead	Arsenic	Units
7/31/98	Geneva	Gravel	57	<10	ppm
7/31/98	Geneva	Gravel	67	<10	ppm
7/31/98	Geneva	Gravel	64	<10	ppm
7/31/98	Geneva	Gravel	52	<10	ppm
7/31/98	Geneva	Gravel	58	<10	ppm
7/30/98	Midas Pit	Topsoil	72	<10	ppm
7/30/98	Midas Pit	Topsoil	71	<10	ppm
7/30/98	Midas Pit	Topsoil	70	<10	ppm
7/30/98	Midas Pit	Topsoil	65	<10	ppm
7/30/98	Midas Pit	Topsoil	72	<10	ppm
8/11/98	Brookline	Sod	78	11	ppm
8/11/98	Brookline	Sod	67	12	ppm
8/11/98	Brookline	Sod	70	14	ppm
8/11/98	Brookline	Sod	75	<10	ppm
8/11/98	Brookline	Sod	69	15	ppm

4.0 OPERATIONS AND MAINTENANCE

Operation and maintenance activities at the site consist of maintenance of revegetated areas. Log-term erosion protection of the properties was accomplished through revegetation and maintenance activities. These activities are described below.

4.1 REVEGETATION

Upon completion of removal activities, each lot was backfilled with approximately either 6 inches or 18 inches depending upon the depth of removal. In most lots sod was placed on top of the topsoil in the properties except where flowerbeds were to be planted. Brookline Farms Inc. provided the sod, trees and all plants. In areas where the homeowner did not want sod or vegetation, such as driveways, gravel was placed.

Each property was replanted with vegetation types that were agreed upon in the homeowner meeting. The replanting involved shade trees, bushes, shrubs, and flowers.

4.2 FINAL PUNCHLIST

After substantial site restoration, ERI and representatives of RMC visited each residence. A final punchlist was developed during this final site visit. After the final site visit, all items in the punchlist were completed.

4.3 ASBUILT SITE PLANS

At the conclusion of site restoration, as built site plans containing work completion notices were signed by each property owner approving the site restoration. The Asbuilt Site Plans and work completion notices are presented in Appendix A. Each Plan depicts, in detail, the final configuration of the restored

property as directed and approved by the property owner or authorized representative.

4.4 MAINTENANCE

ERI has provided a one-year guarantee on all vegetation located within each lot whether the vegetation was replanted or left in place. The guarantee states that if it can be shown that vegetation died due to activities associated with the removal action, ERI will replace the vegetation provided the homeowner provides reasonable care for the vegetation.

Additionally, ERI will also return in the Spring of 1999 to review each lot and to remedy any problems that may have occurred over the Winter season. This may include rolling sodded areas, replanting seeded areas, and repairing depressions in yards due to settling.

Appendix A

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 725

Date: 11/10/98

Owner: Dominic Priano

Property Address: 8821 S. 120 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO

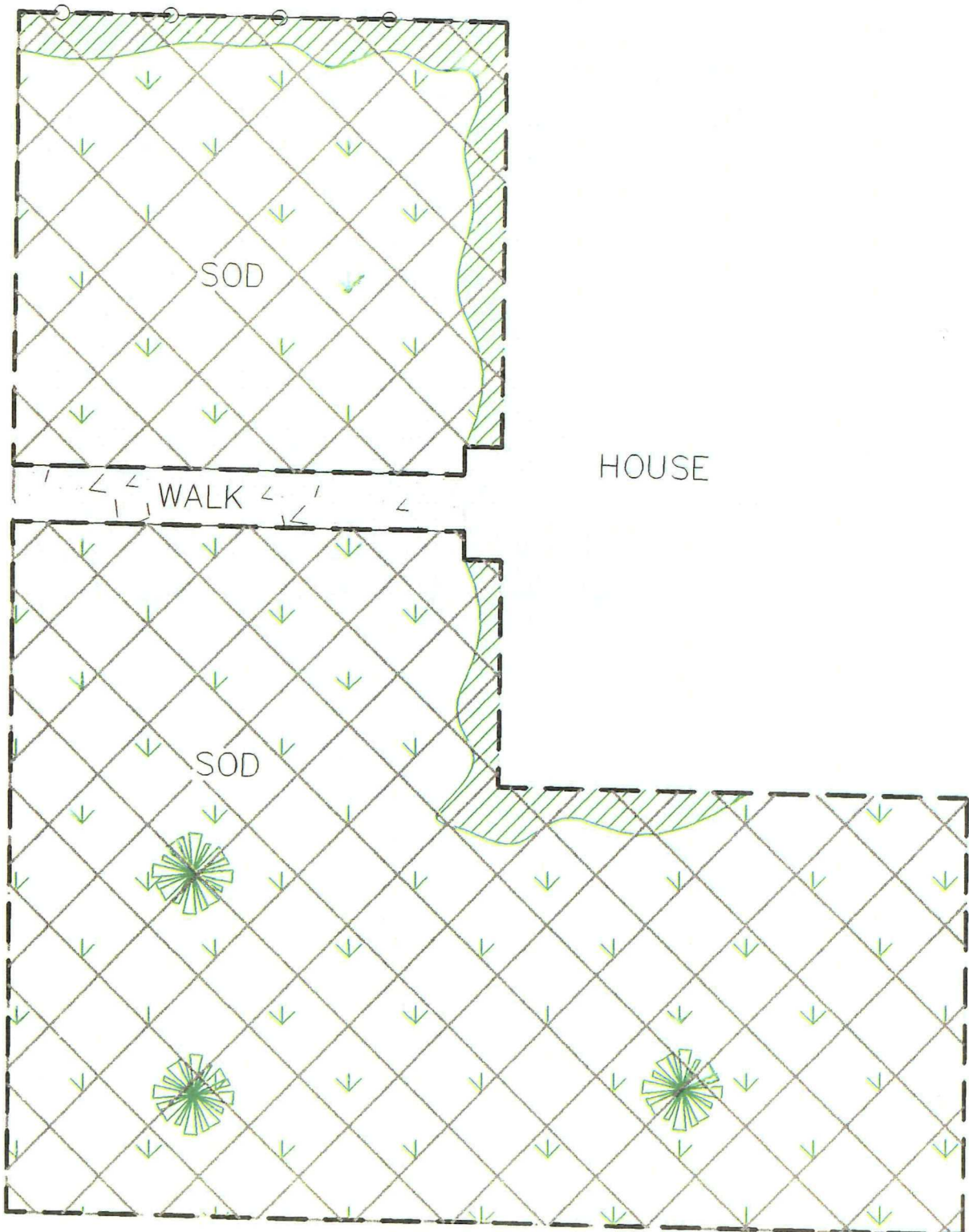
for James R. Burke

Signature:
EPA

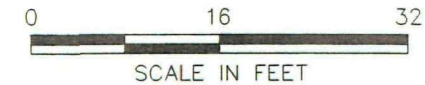
RL

OWNER IS NOT HAPPY
WITH Topsoil, water
does not soak in

AREA NOT
REMEDIED



ASBUILT



SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL

LotNo.: S0725 Date: 11/7-98
Owner: DOMINIC PRIANO
Property Address: 8821 SOUTH 120 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: [Signature] Property Owner
Signature: [Signature] Property Owner

LEGEND

- | | | | |
|-------|----------------------------------|----|----------------------|
| --- | EXCAVATION BOUNDARY | ⊙ | WATER METER |
| - - - | APPROX. LOT BOUNDARY | GV | GAS METER |
| --- | UNDERGROUND UTILITY | AC | AIR CONDITIONER |
| OH OH | OVERHEAD UTILITY | ⊙ | LIGHT POLE |
| ○ ○ | CHAIN LINK FENCE | ⊙ | UTILITY POLE |
| X X | BARBED WIRE FENCE | ⊙ | SPRINKLER HEAD |
| --- | CONCRETE CURBING | ⊙ | SURVEY CONTROL POINT |
| ① | TREE | □ | CONCRETE SURFACE |
| ② | SHRUB | □ | BUILDING |
| ③ | FLOWER | □ | GRAVEL SURFACE |
| □ | 6-INCH REMOVAL/RESTORATION AREA | □ | GARDEN/PLANTER AREA |
| □ | 18-INCH REMOVAL/RESTORATION AREA | | |



TITLE: DOMINIC PRIANO
8821 SOUTH 120 EAST
SANDY, UTAH 84070

PREPARED FOR: ASARCO		
DATE: OCTOBER 1998	PROJECT #: 98-10	SHT 1 OF 1
DRAWN BY: JDL	DWG/FIG #: S0725AB.DWG	REV #:
CHECKED:	SCALE: AS NOTED	DWG SIZE: D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 763

Date: 11/10/98

Owner: Elverda Peterson

Property Address: 8831 S. 90 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: James R. Truick
for ASARCO

Signature: _____
EPA

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 831

Date: 11/10/98

Owner: Elverda Peterson

Property Address: 8871 S. 90 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: _____
ASARCO

James R. Tische

Signature: _____
EPA

BM

**SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

LotNo.: S0763, S0831

Date: 11/7/98

Owner: ELVERDA PETERSON

Property Address: 8887 SOUTH 90 EAST, SANDY, UTAH 84074

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Elverda Peterson
Property Owner

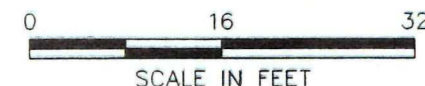
Property Owner

LEGEND

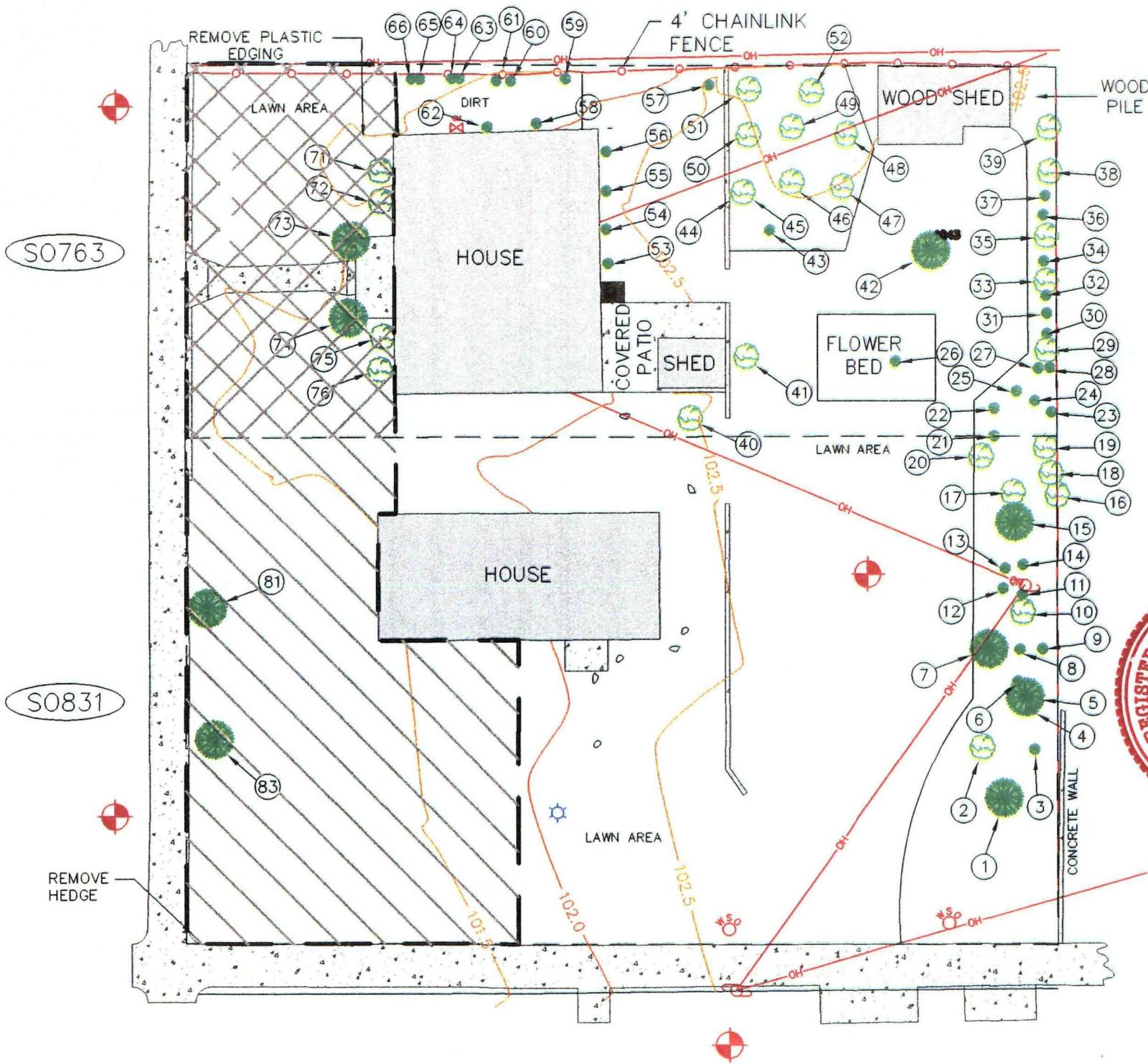
	EXCAVATION BOUNDARY		WATER METER
	APPROX. LOT BOUNDARY		GAS METER
	UNDERGROUND UTILITY		AIR CONDITIONER
	OVERHEAD UTILITY		LIGHT POLE
	CHAIN LINK FENCE		UTILITY POLE
	BARBED WIRE FENCE		SPRINKLER HEAD
	CONCRETE CURBING		SURVEY CONTROL POINT
	TREE		CONCRETE SURFACE
	SHRUB		BUILDING
	FLOWER		GRAVEL SURFACE
	6-INCH REMOVAL/RESTORATION AREA		
	18-INCH REMOVAL/RESTORATION AREA		



ASBUILT



NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.



		TITLE: ELVERDA PETERSON 8887 SOUTH 90 EAST SANDY, UTAH 84070	
PREPARED FOR: ASARCO			
DATE: OCTOBER 1998	PROJECT #:	SHT 1 OF 1	
DRAWN BY: JDL	DWG/FIG #: 763831AB.DWG	REV #:	
CHECKED:	SCALE: AS NOTED	DWG SIZE: D	

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 765

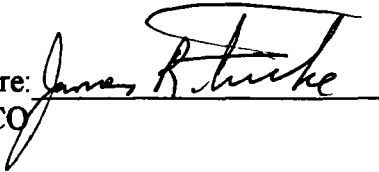
Date: 11/10/98

Owner: Sterling Jensen

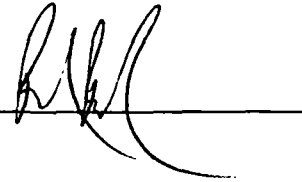
Property Address: 8851 S. 120 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO



Signature:
EPA



SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL

LotNo.: S0765

Date: 10/24/98

Owner: STERLING & PHYLLIS JENSEN

Property Address: 8851 SOUTH 120 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-18), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO's contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.











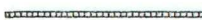











The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Phyllis P. Jones Signature: Stefen E. Jensen
Property Owner Property Owner

LEGEND

	EXCAVATION BOUNDARY		WATER METER
	APPROX. LOT BOUNDARY		GAS METER
	UNDERGROUND UTILITY		AIR CONDITIONER
	OVERHEAD UTILITY		LIGHT POLE
	CHAIN LINK FENCE		UTILITY POLE
	BARBED WIRE FENCE		SPRINKLER HEAD
	CONCRETE CURBING		SURVEY CONTROL POINT
	TREE		CONCRETE SURFACE
	SHRUB		BUILDING
	FLOWER		GRAVEL SURFACE
	6-INCH REMOVAL/ RESTORATION AREA		
	18-INCH REMOVAL/ RESTORATION AREA		

ERI
ENVIRONMENTAL RECLAMATION, INC.

STERLING & PHYLLIS JENSEN
8851 SOUTH 120 EAST
SANDY, UTAH 84070

PREPARED FOR:

ASARCO

DATE: OCTOBER 1998

98	PROJECT #:	98-14
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SHT	1	OF	1
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DRAWN BY: IDI

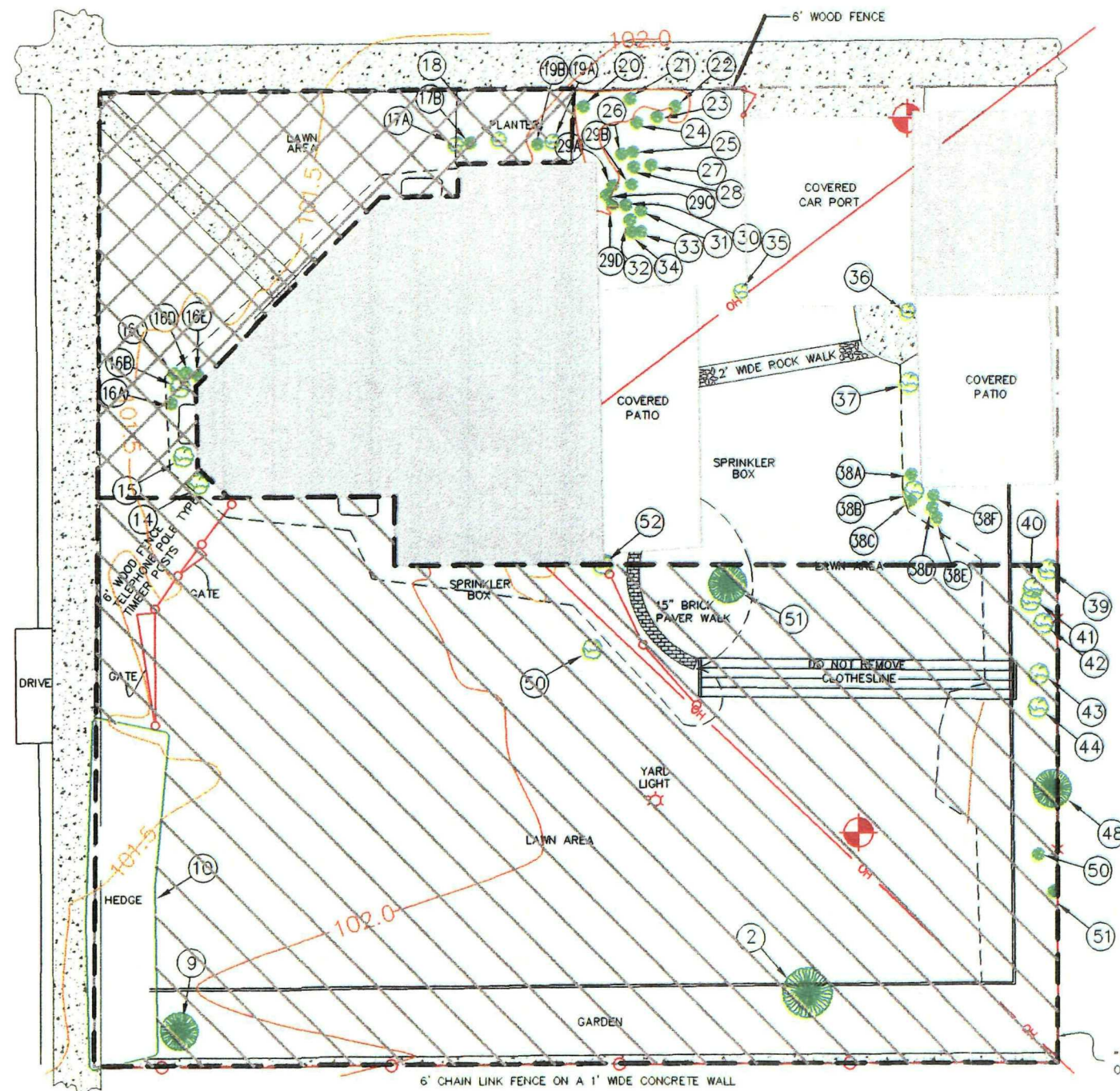
DWG/FIG #: S0765AB.DWG

REV 4:

CHECKED:

SCALE: AS NOTED

DWG SIZE:	D
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NOTES

- 1) SPRINKLER SYSTEM TO BE REPLACED IN ALL EXCAVATED AREAS.
- 2) GAS LINE FEED TO YARD LIGHT. UTILITY LOCATE WAS PERFORMED.



ASBUILT

NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 766

Date: 11/10/98

Owner: Lance Windsor

Property Address: 8852 S. Center St.

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
for ASARCO

James R. Triche

Signature:
EPA

[Signature]

**SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

LotNo.: S0766

Date: 11/7/98

Owner: LANCE WINDSOR

Property Address: 8852 SOUTH CENTER STREET, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

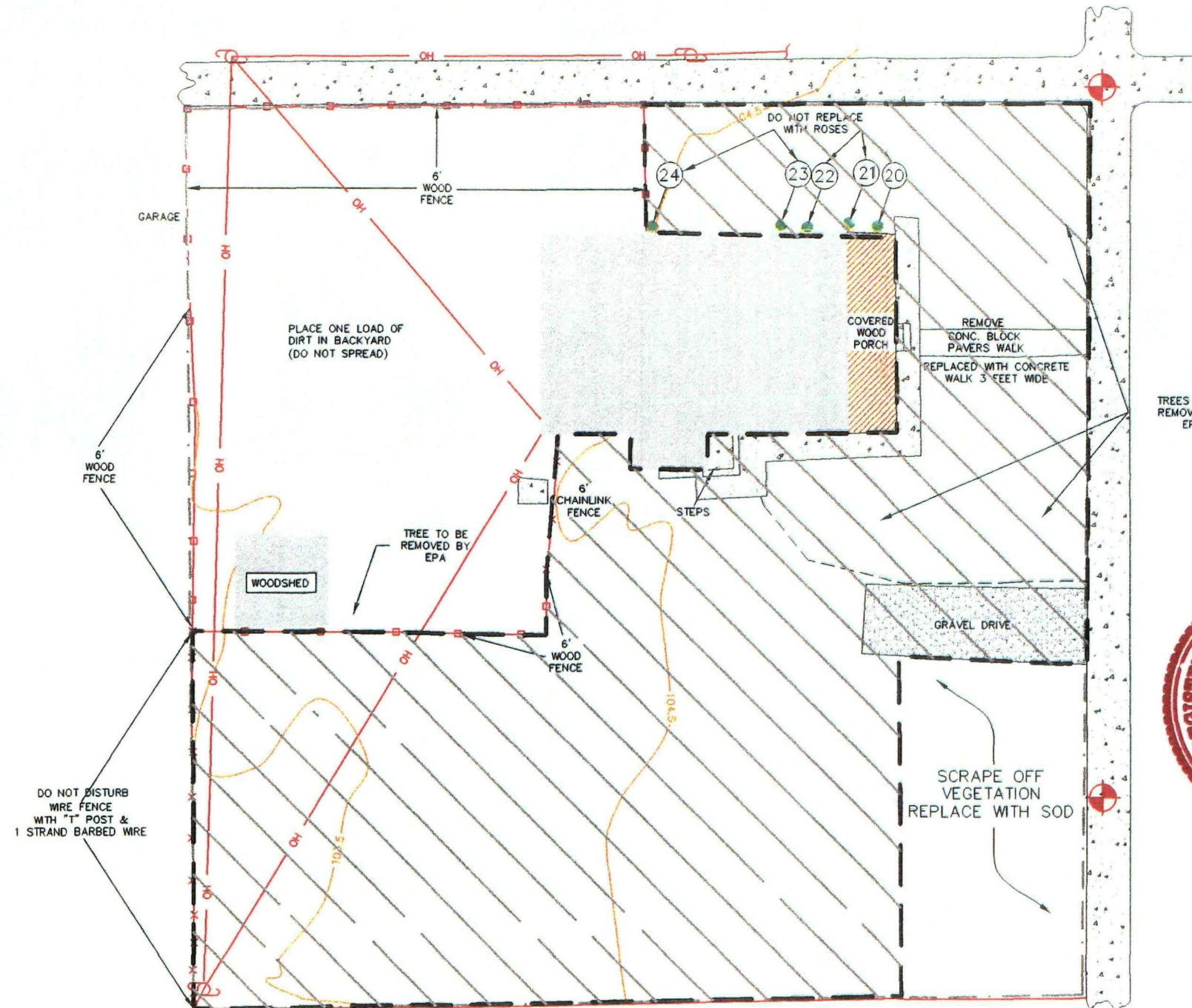
In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

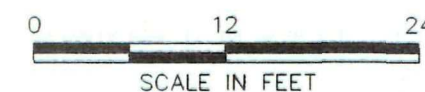
Signature: [Signature] Signature: [Signature]
Property Owner Property Owner

LEGEND

	EXCAVATION BOUNDARY		WATER METER
	APPROX. LOT BOUNDARY		GAS METER
	UNDERGROUND UTILITY		AIR CONDITIONER
	OVERHEAD UTILITY		LIGHT POLE
	CHAIN LINK FENCE		UTILITY POLE
	BARBED WIRE FENCE		SPRINKLER HEAD
	CONCRETE CURBING		SURVEY CONTROL POINT
	TREE		CONCRETE SURFACE
	SHRUB		BUILDING
	FLOWER		GRAVEL SURFACE
	6-INCH REMOVAL/RESTORATION AREA		
	18-INCH REMOVAL/RESTORATION AREA		



ASBUILT



NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

		TITLE: LANCE WINDSOR 8852 SOUTH CENTER STREET SANDY, UTAH 84070	
PREPARED FOR: ASARCO			
DATE: OCTOBER 1998	PROJECT #:	SHT 1 OF 1	
DRAWN BY: JDL	DWG/FIG #: S0766AB.DWG	REV #:	
CHECKED:	SCALE: AS NOTED	DWG SIZE: D	

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 833

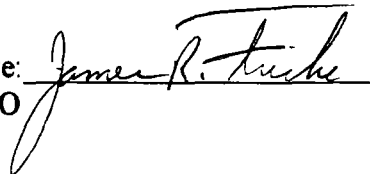
Date: 11/10/98

Owner: Bernice Vigil

Property Address: 8869 S. 120 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
for ASARCO



Signature:
EPA



**SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

LotNo.: S0833

Date: 11/2/98

Owner: NETALIE VIGIL

Property Address: 8869 SOUTH 120 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

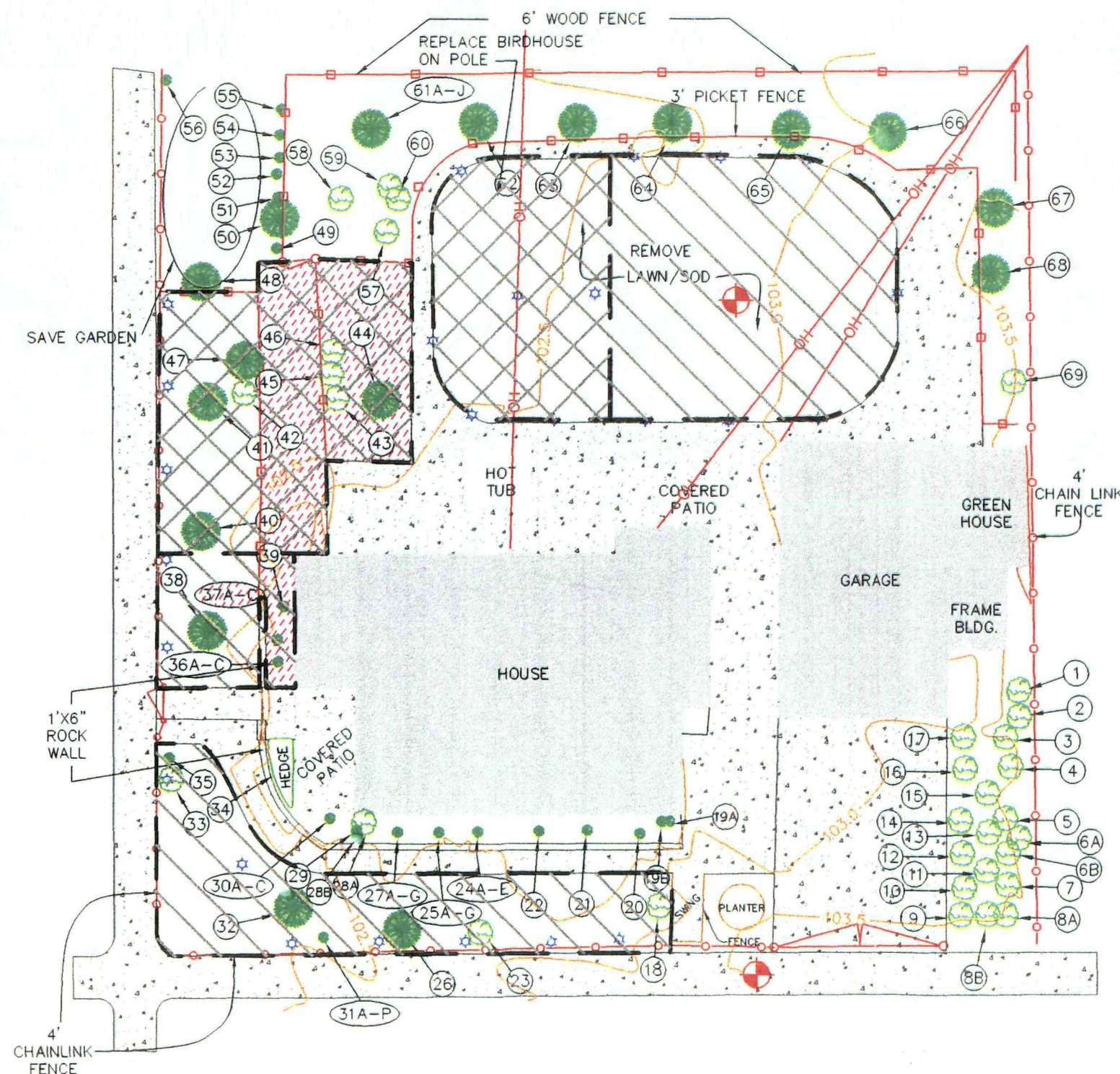
The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Netalie Vigil
Property Owner

Signature: Behzad Mirzayi
Property Owner



ASBUILT

0 16 32
SCALE IN FEET

NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

LEGEND

—	EXCAVATION BOUNDARY	⊙	WATER METER
- - -	APPROX. LOT BOUNDARY	GV	GAS METER
---	UNDERGROUND UTILITY	AC	AIR CONDITIONER
— OH — OH —	OVERHEAD UTILITY	⊙	LIGHT POLE
— X — X —	CHAIN LINK FENCE	⊙	UTILITY POLE
— X — X —	BARBED WIRE FENCE	⊙	SPRINKLER HEAD
=====	CONCRETE CURBING	⊙	SURVEY CONTROL POINT
①	TREE	□	CONCRETE SURFACE
②	SHRUB	□	BUILDING
③	FLOWER	□	GRAVEL SURFACE
⊗	6-INCH REMOVAL/RESTORATION AREA	⊗	LANDSCAPE ROCK
⊗	18-INCH REMOVAL/RESTORATION AREA		

ERI
ENVIRONMENTAL RECLAMATION, INC.

TITLE:
**NETALIE VIGIL
8869 SOUTH 120 EAST
SANDY, UTAH 84070**

PREPARED FOR:

ASARCO

DATE: OCTOBER 1998	PROJECT #: 98-14	SHT 1 OF 1
DRAWN BY: JDL	DWG/FIG #: S0833AB.DWG	REV #:
CHECKED:	SCALE: AS NOTED	DWG SIZE: D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 834

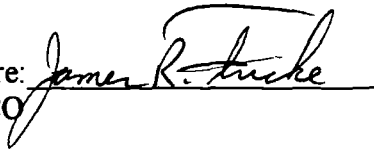
Date: 11/10/98

Owner: LeRae Hyde

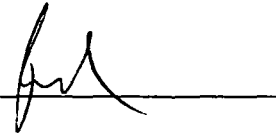
Property Address: 8860 S. Center St.

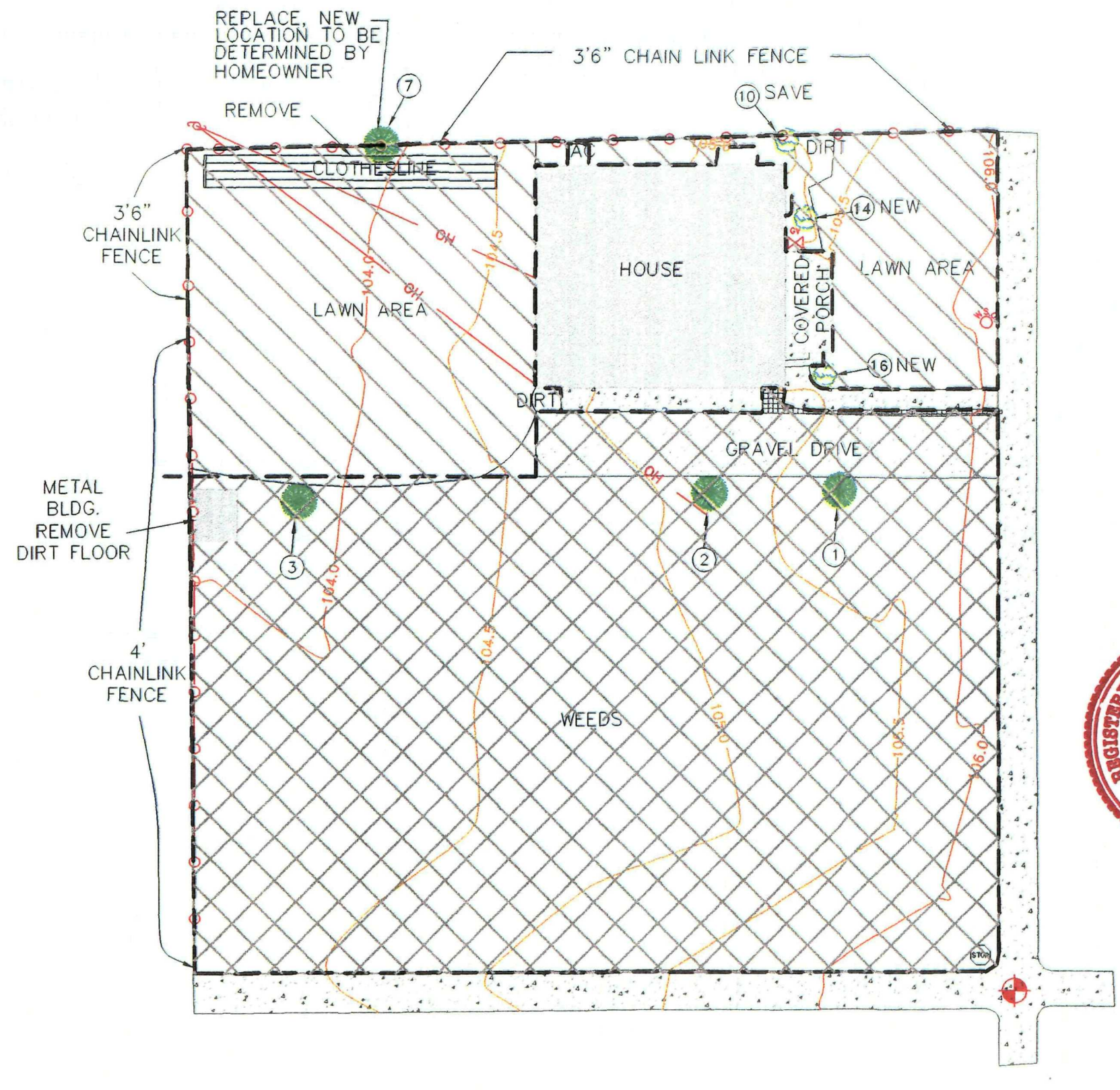
This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO



Signature:
EPA





ASBUILT

SITE-SPECIFIC WORK COMPLETION NOTICE SANDY SMELTER SITE TIME CRITICAL REMOVAL

LotNo.: 30834 Date: 11/7/98
Owner: LAWRENCE BROWN
Property Address: 8860 SOUTH CENTER STREET

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: [Signature] Property Owner
Signature: _____ Property Owner

LEGEND

---	EXCAVATION BOUNDARY	⊙	WATER METER
- - -	APPROX. LOT BOUNDARY	GV	GAS METER
---	UNDERGROUND UTILITY	AC	AIR CONDITIONER
OH OH	OVERHEAD UTILITY	⊙	LIGHT POLE
---	CHAIN LINK FENCE	⊙	UTILITY POLE
X X	BARBED WIRE FENCE	⊙	SPRINKLER HEAD
---	CONCRETE CURBING	⊙	SURVEY CONTROL POINT
①	TREE	⊙	CONCRETE SURFACE
②	SHRUB	⊙	BUILDING
③	FLOWER	⊙	GRAVEL SURFACE
⊙	6-INCH REMOVAL/RESTORATION AREA		
⊙	18-INCH REMOVAL/RESTORATION AREA		



TITLE: LAWRENCE BROWN
8860 SOUTH CENTER STREET
SANDY, UTAH 84070

PREPARED FOR:	ASARCO		
DATE: OCTOBER 1998	PROJECT #: 98-14	SHT 1 OF 1	
DRAWN BY: JDL	DWG/FIG #: S0834AB.DWG	REV #:	
CHECKED:	SCALE: AS NOTED	DWG SIZE: D	

NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 843

Date: 11/10/98

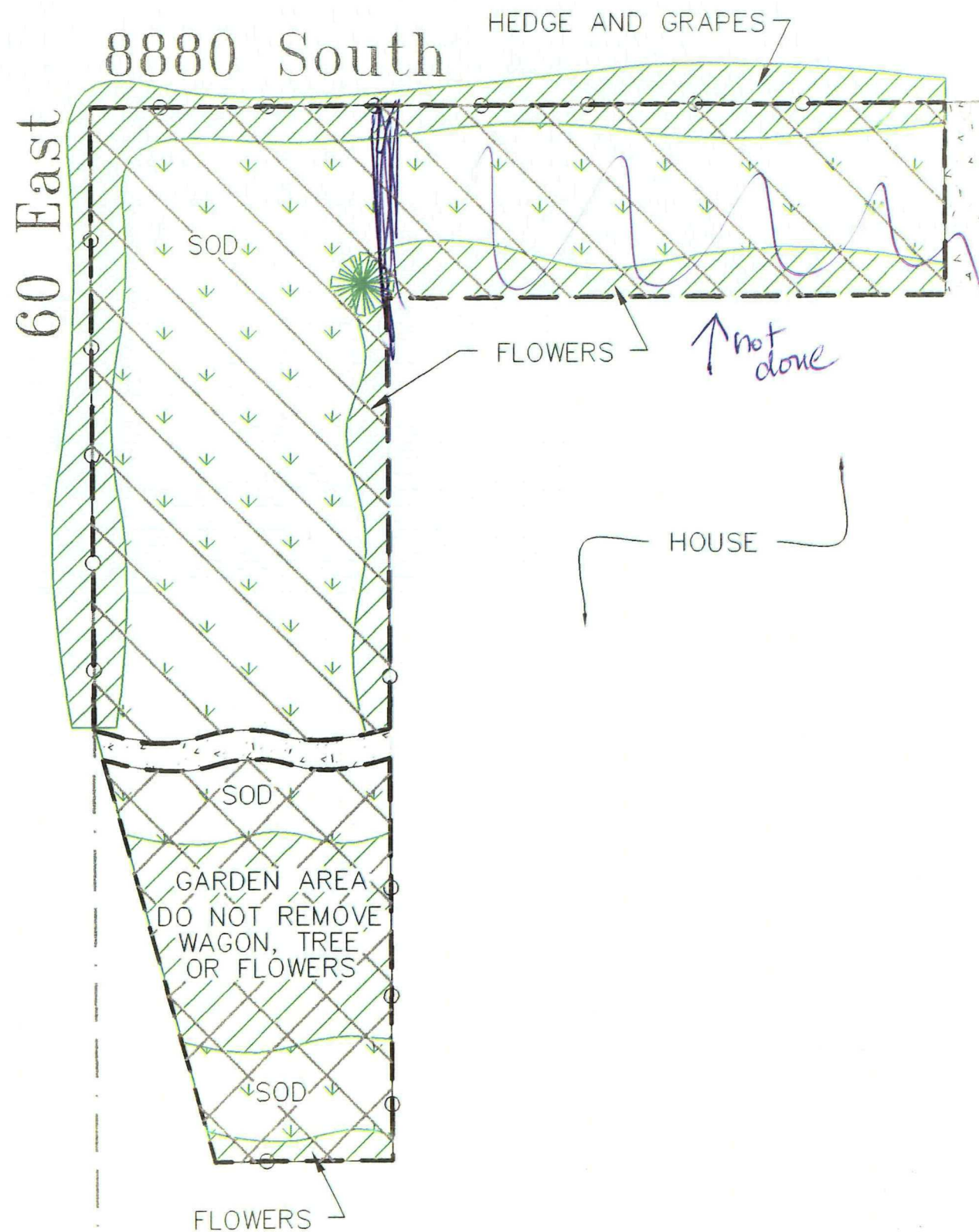
Owner: Susan Snow

Property Address: 8891 S. 60 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: James H. Hulse
for ASARCO

Signature: [Signature]
EPA



AREA NOT
REMEDIED



ASBUILT

0 10 20
SCALE IN FEET

SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL

LotNo.: S0843

Date: 11/9/98

Owner: SUSAN SNOW

Property Address: 8891 SOUTH 60 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO's contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

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This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Susan Snow Signature: _____

Property Owner

Property Owner

LEGEND

---	EXCAVATION BOUNDARY	⊗	WATER METER
---	APPROX. LOT BOUNDARY	GV	GAS METER
---	UNDERGROUND UTILITY	AC	AIR CONDITIONER
OH OH	OVERHEAD UTILITY	⊙	LIGHT POLE
○ ○	CHAIN LINK FENCE	⊕	UTILITY POLE
X X	BARBED WIRE FENCE	⊗	SPRINKLER HEAD
---	CONCRETE CURBING	⊕	SURVEY CONTROL POINT
①	TREE	□	CONCRETE SURFACE
②	SHRUB	□	BUILDING
③	FLOWER	□	GRAVEL SURFACE
□	6-INCH REMOVAL/RESTORATION AREA	□	LANDSCAPED AREA
□	18-INCH REMOVAL/RESTORATION AREA		

ERI
ENVIRONMENTAL REMEDIATION, INC.

TITLE:

SUSAN SNOW
8891 SOUTH 60 EAST
SANDY, UTAH 84070

PREPARED FOR:

ASARCO

DATE: OCTOBER 1998

PROJECT #: 98-10

SHT 1 OF 1

DRAWN BY: JDL

DWG/FIG #: S0843AB.DWG

REV #:

CHECKED:

SCALE: AS NOTED

DWG SIZE: D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 845

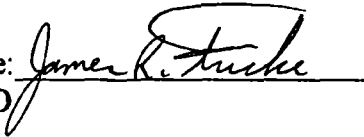
Date: 1/10/98

Owner: Arthur Henseler

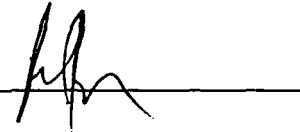
Property Address: 8889 S. 90 East

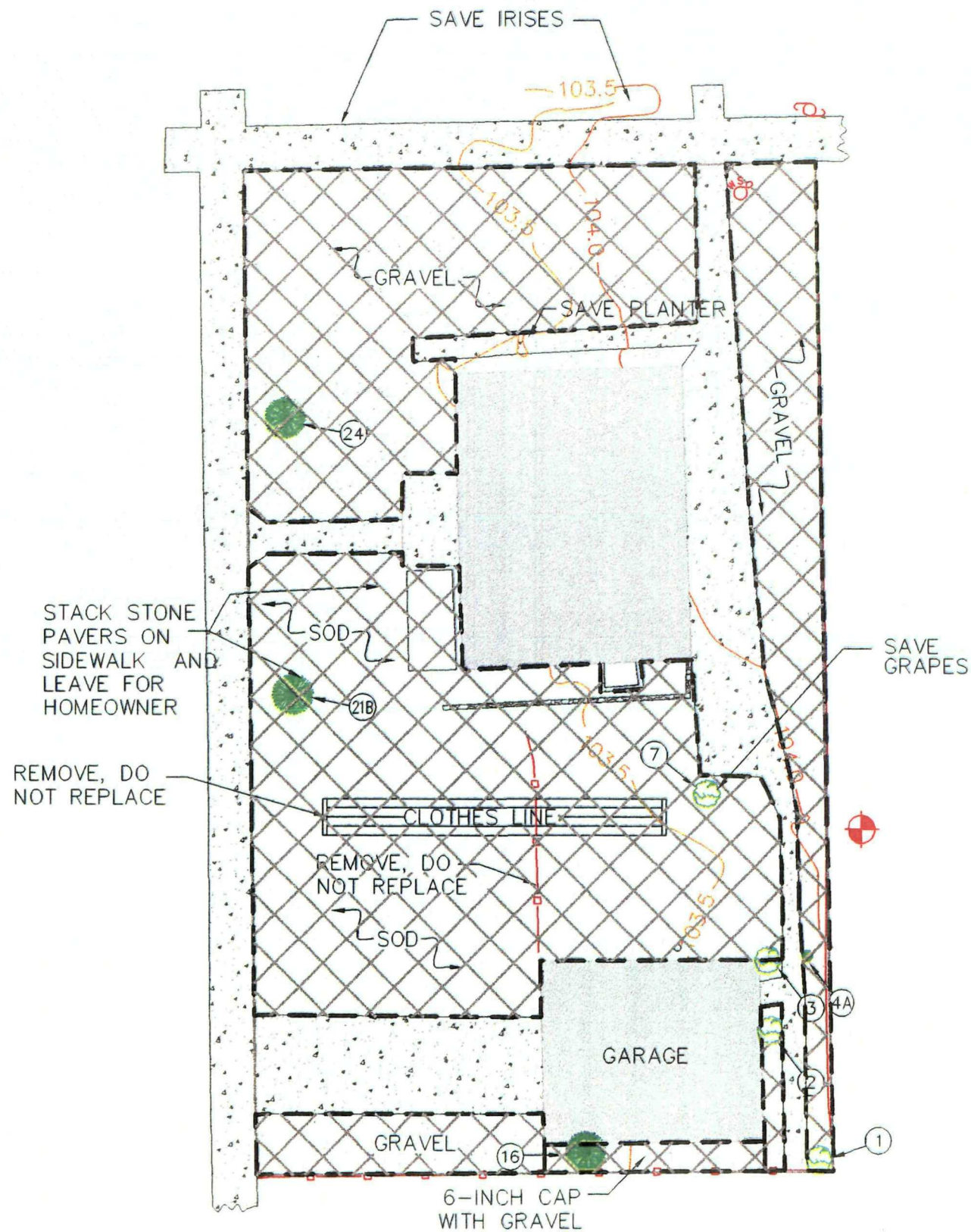
This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO



Signature:
EPA





ASBUILT

0 16 32
SCALE IN FEET

NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL

LotNo.: S0845

Date: 11/3/98

Owner: ARTHUR HENSELES

Property Address: 8889 SOUTH 90 EAST

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Arthur Henseles
Property Owner

Signature: _____
Property Owner

LEGEND

---	EXCAVATION BOUNDARY	⊙	WATER METER
- - -	APPROX. LOT BOUNDARY	CV	GAS METER
---	UNDERGROUND UTILITY	AC	AIR CONDITIONER
OH OH	OVERHEAD UTILITY	⊙	LIGHT POLE
---	CHAIN LINK FENCE	⊙	UTILITY POLE
X X	BARBED WIRE FENCE	⊙	SPRINKLER HEAD
---	CONCRETE CURBING	⊙	SURVEY CONTROL POINT
①	TREE	□	CONCRETE SURFACE
②	SHRUB	□	BUILDING
③	FLOWER	□	GRAVEL SURFACE
□	6-INCH REMOVAL/RESTORATION AREA		
□	18-INCH REMOVAL/RESTORATION AREA		

ERI
ENVIRONMENTAL RESTORATION, INC.

TITLE:
ARTHUR HENSELES
8889 SOUTH 90 EAST
SANDY, UTAH 84070

PREPARED FOR:

ASARCO

DATE: OCTOBER 1998	PROJECT #: 98-14	SHT 1 OF 1
DRAWN BY: JDL	DWG/FIG #: S0845AB.DWG	REV #:
CHECKED:	SCALE: AS NOTED	DWG SIZE: D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 846

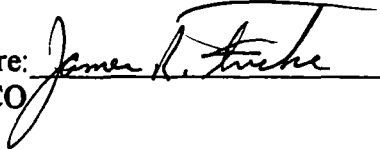
Date: 11/10/98

Owner: Iona Pangos

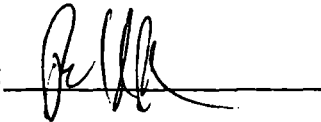
Property Address: 104 E. 8880 South

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO



Signature:
EPA



**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 849

Date: 11/10/98

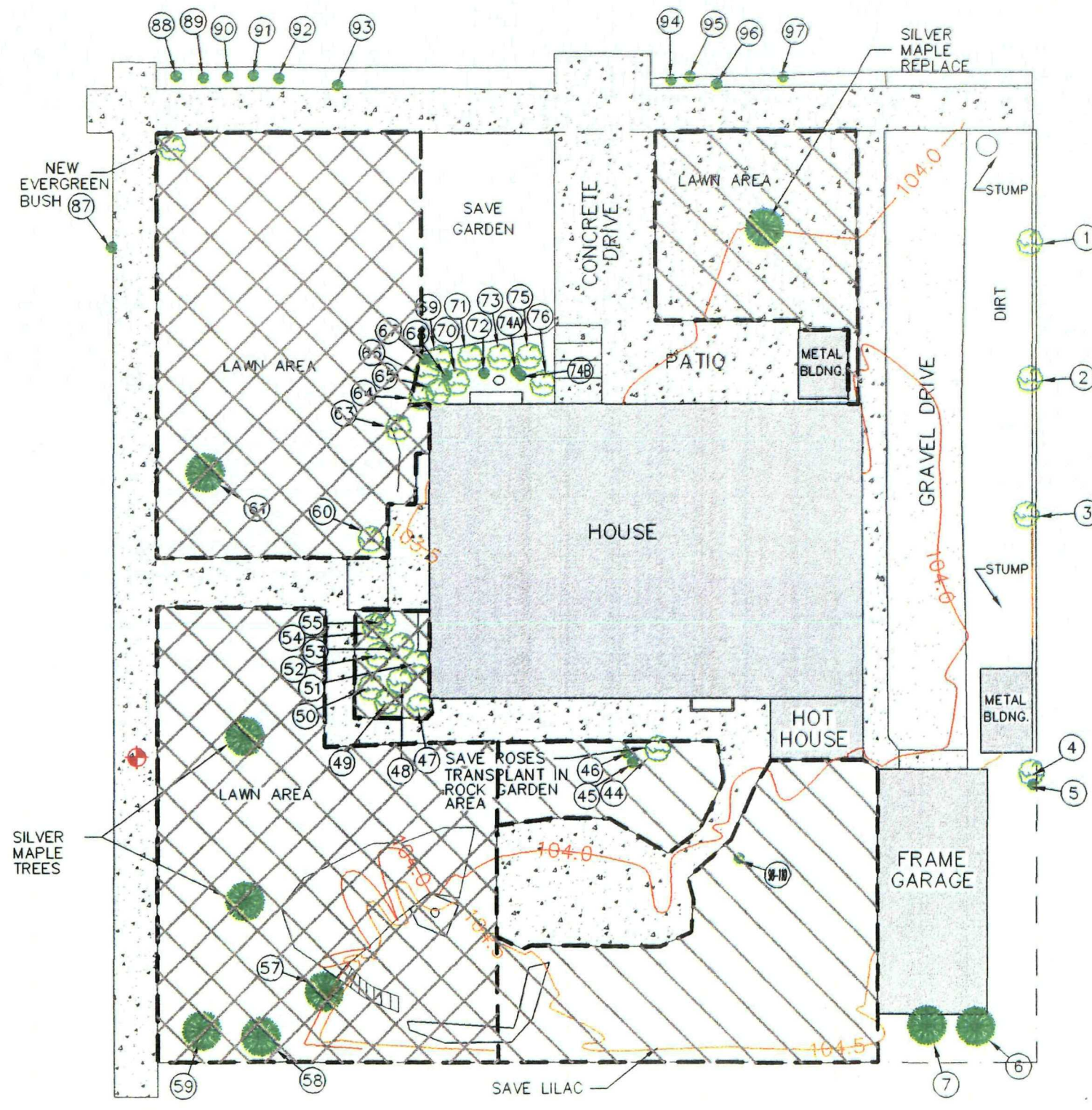
Owner: Leendert Visser

Property Address: 8893 S. 120 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: James R. Tucker
for ASARCO

Signature: [Signature]
EPA



SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL

LotNo.: S0849 Date: 11/5/98
Owner: LEENDERT VISSER
Property Address: 8891, 8893 SOUTH 120 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-18), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: [Signature] Signature: [Signature]
Property Owner Property Owner

LEGEND

- | | | | |
|-------|----------------------------------|----|----------------------|
| --- | EXCAVATION BOUNDARY | ⊙ | WATER METER |
| - - - | APPROX. LOT BOUNDARY | GV | GAS METER |
| --- | UNDERGROUND UTILITY | AC | AIR CONDITIONER |
| OH OH | OVERHEAD UTILITY | ☆ | LIGHT POLE |
| --- | CHAIN LINK FENCE | ⊙ | UTILITY POLE |
| -X-X- | BARBED WIRE FENCE | ☆ | SPRINKLER HEAD |
| --- | CONCRETE CURBING | ⊙ | SURVEY CONTROL POINT |
| ① | TREE | □ | CONCRETE SURFACE |
| ② | SHRUB | □ | BUILDING |
| ③ | FLOWER | □ | GRAVEL SURFACE |
| □ | 6-INCH REMOVAL/RESTORATION AREA | | |
| □ | 18-INCH REMOVAL/RESTORATION AREA | | |



ASBUILT

0 16 32
SCALE IN FEET

NOTE: BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

TITLE:		LEENDERT VISSER 8891, 8893 SOUTH 120 EAST SANDY, UTAH 84070	
PREPARED FOR:		ASARCO	
DATE: OCTOBER 1998	PROJECT #:	SHT	1 OF 1
DRAWN BY: JDL	DWG/FIG #: S0849AB.DWG	REV #:	
CHECKED:	SCALE: AS NOTED	DWG SIZE:	D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 851

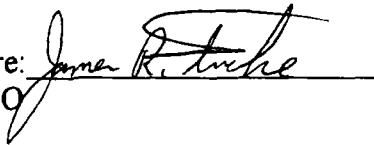
Date: 11/10/98

Owner: Tracy Cowdell

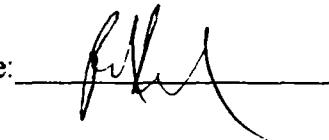
Property Address: 142 East 8880 South

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO

Handwritten signature of James R. Burke in black ink, written over a horizontal line.

Signature:
EPA

Handwritten signature in black ink, written over a horizontal line.

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 866

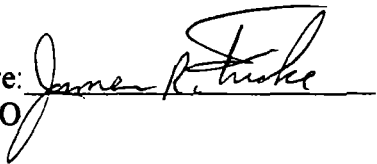
Date: 11/10/98

Owner: Jesse Cervantes

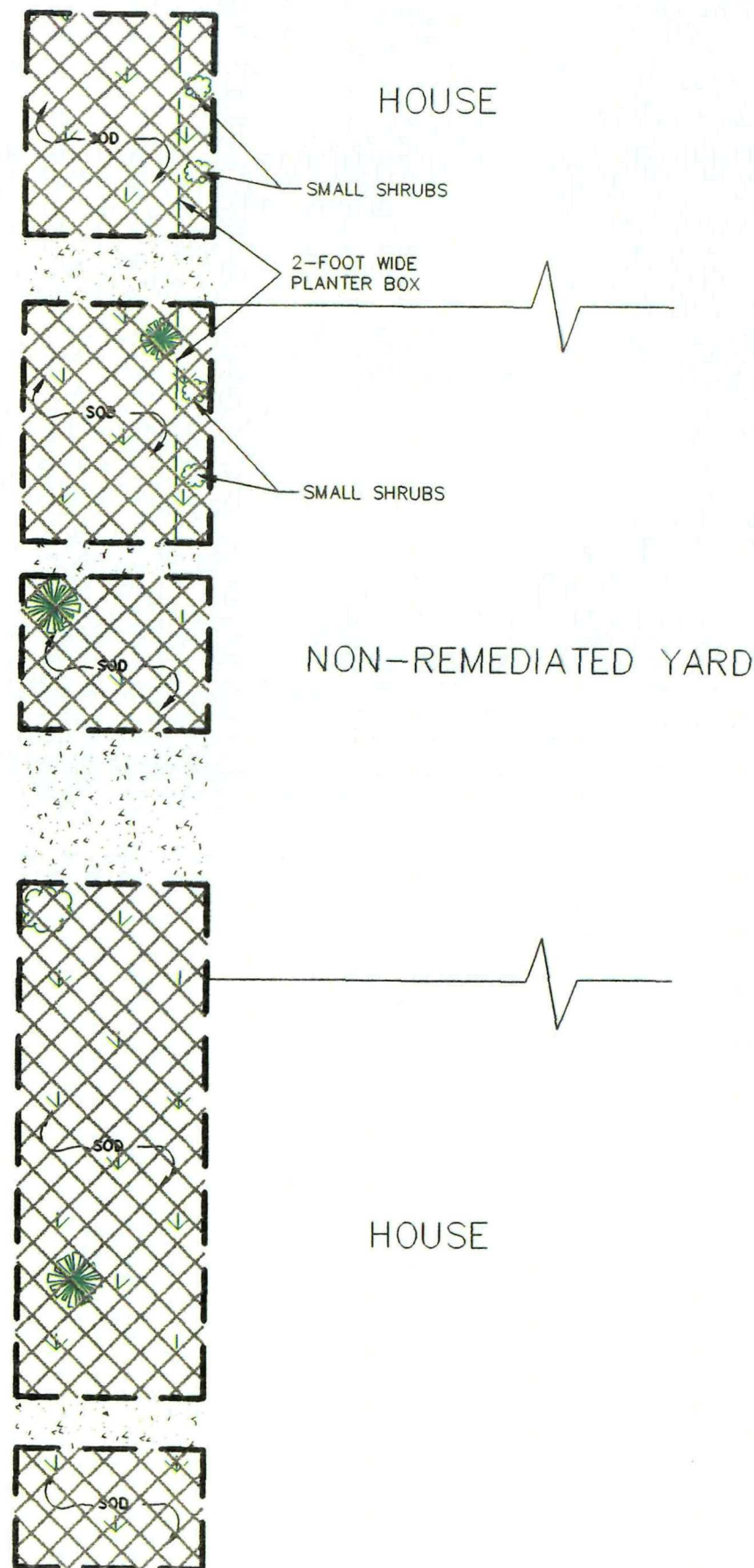
Property Address: 8920 S. 71 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: _____
ASARCO



Signature: _____
EPA

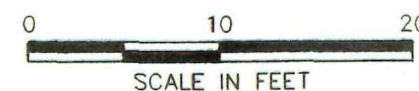


NOTES:

REMOVE ALL BUSHES;
REPLACE WITH SOD.



ASBUILT



SITE-SPECIFIC WORK COMPLETION NOTICE SANDY SMELTER SITE TIME CRITICAL REMOVAL

LotNo.: S0866 Date: _____
Owner: JESSE CERVANTES
Property Address: 8920 SOUTH 71 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

In the spring of 1999, our landscape subcontractor will visit each property to inspect the condition of sod and landscaping at the above-referenced property. The landscape subcontractor has provided a warranty for the sod and will inspect its condition to determine if any maintenance or replacement is required. The tree and shrubbery installed at the above-referenced property are also warranted for a period of one year, provided that the homeowner provides the normal maintenance and care required to successfully develop vegetation.

This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: _____ Signature: _____
Property Owner Property Owner

LEGEND

—	EXCAVATION BOUNDARY	⊗	WATER METER
---	APPROX. LOT BOUNDARY	GV	GAS METER
---	UNDERGROUND UTILITY	AC	AIR CONDITIONER
—OH—OH—	OVERHEAD UTILITY	⊙	LIGHT POLE
—X—X—	CHAIN LINK FENCE	⊕	UTILITY POLE
---	BARBED WIRE FENCE	⊗	SPRINKLER HEAD
---	CONCRETE CURBING	⊗	SURVEY CONTROL POINT
①	TREE	□	CONCRETE SURFACE
②	SHRUB	□	BUILDING
③	FLOWER	□	GRAVEL SURFACE
□	6-INCH REMOVAL/RESTORATION AREA		
□	18-INCH REMOVAL/RESTORATION AREA		

ERI
ENVIRONMENTAL RECLAMATION, INC.

TITLE: JESSE CERVANTES
8920 SOUTH 71 EAST
SANDY, UTAH 84070

PREPARED FOR: ASARCO

DATE: OCTOBER 1998	PROJECT #: 98-10	SHT 1 OF 1
DRAWN BY: JDL	DWG/FIG #: S0866AB.DWG	REV #:
CHECKED:	SCALE: AS NOTED	DWG SIZE: D

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 869

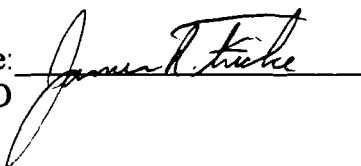
Date: 11/10/98

Owner: Lindy Barton

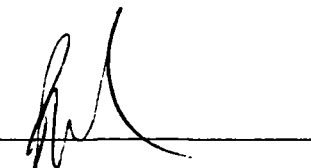
Property Address: 8912 S. 120 East

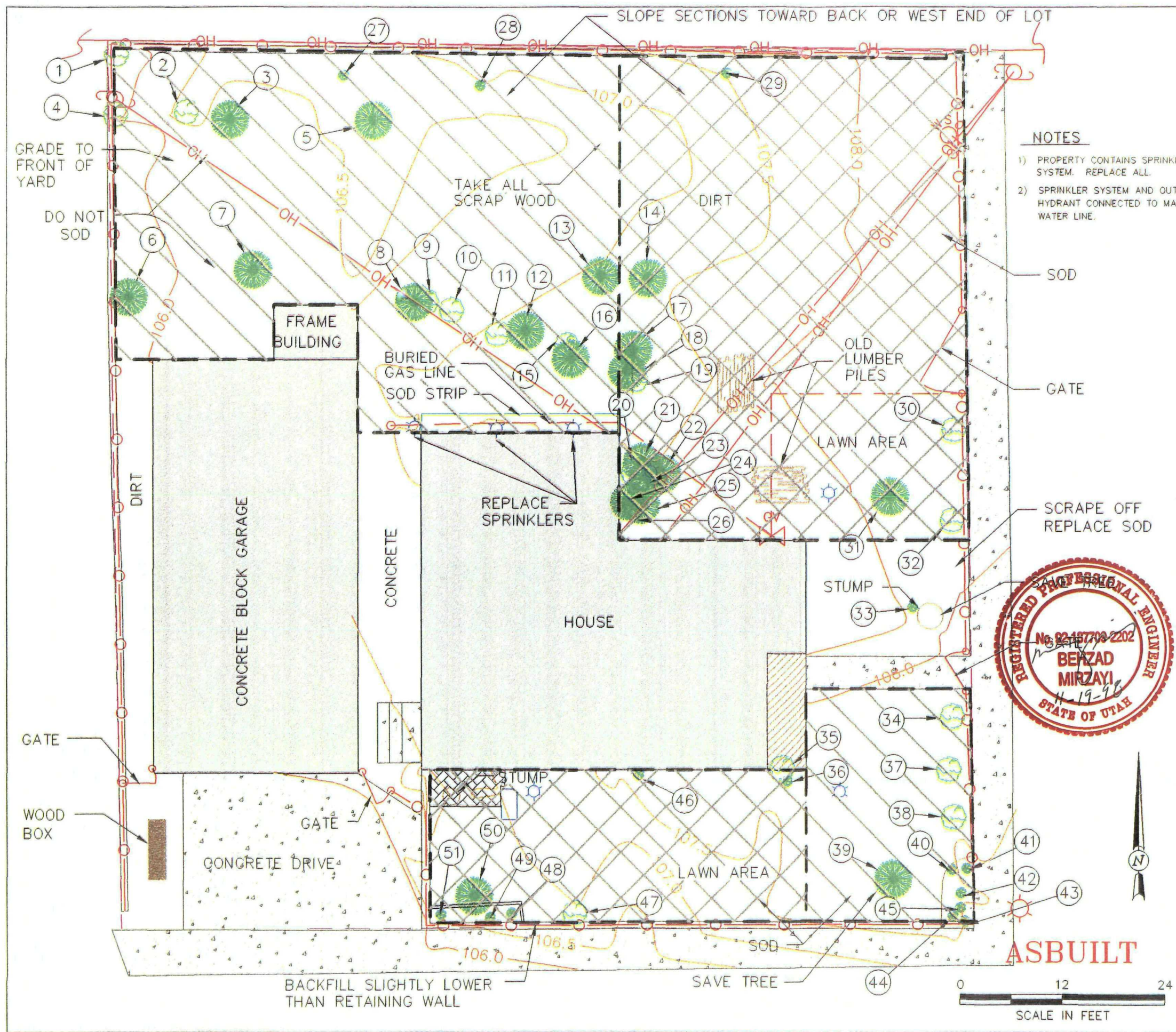
This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature:
ASARCO

for 

Signature:
EPA





SITE-SPECIFIC WORK COMPLETION NOTICE SANDY SMELTER SITE TIME CRITICAL REMOVAL

LotNo.: S0869

Date: 10/23/98

Owner: LINDA BARTON

Property Address: 8912 SOUTH 120 EAST SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCLA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO's contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

The removal and subsequent restoration were completed in accordance with this site-specific design plan approved by the property owner. After substantial completion of work at the above-referenced property, RMC's representative developed a final punch list in conjunction with the owner, itemizing all actions to be completed according to the design report. This punch list included property owner requirements for any minor adjustments and final restoration of the above-referenced property. All items on the punch list developed during this meeting have been implemented, and restoration of the property is now complete as shown on this plot plan.

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This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature:

Linda Barton

Signature:

Property Owner

ERI
ENVIRONMENTAL RECLAMATION, INC.

TITLE:

LINDA BARTON
8912 SOUTH 120 EAST
SANDY, UTAH 84070

PREPARED FOR:

ASARCO

DATE: OCTOBER 1998

PROJECT #: 98-10

SHT 1 OF 1

DRAWN BY: JDL

DWG/FIG #: S0869AB.DWG

REV #:

CHECKED:

SCALE: AS NOTED

DWG SIZE: D

NOTE:
BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

**ADDENDUM TO
SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

Lot Number: 870

Date: 11/10/98

Owner: Angeline Kreger

Property Address: 8909 S. 120 East

This addendum is enclosed with the final "As built" property drawing approved by the homeowner. The drawing contains diction allowing the homeowner to approve the removal and restoration performed by Resource Management Consultants, Inc. (ASARCO's contractor) at the subject property in accordance with the site specific design plan. This addendum also serves as a vehicle for designated representatives from ASARCO and the EPA as authorized witnesses to the subject drawing showing homeowner approval.

Signature: James R. Burke
for ASARCO

Signature: [Signature]
EPA

**SITE-SPECIFIC WORK COMPLETION NOTICE
SANDY SMELTER SITE
TIME CRITICAL REMOVAL**

LotNo.: S0870

Date: 10/23-98

Owner: ANGELINE KREGER

Property Address: 8909 SOUTH 120 EAST, SANDY, UTAH 84070

In accordance with the U.S. Environmental Protection Agency (EPA) Administrative Order on consent (EPA Docket No. CERCIA VIII-98-16), and the Sandy City Smelter's Work Plan dated June 25, 1998, Resource Management Consultants, Inc., (RMC) (ASARCO'S contractor) has completed the removal activity and subsequent site restoration at the above-referenced property.

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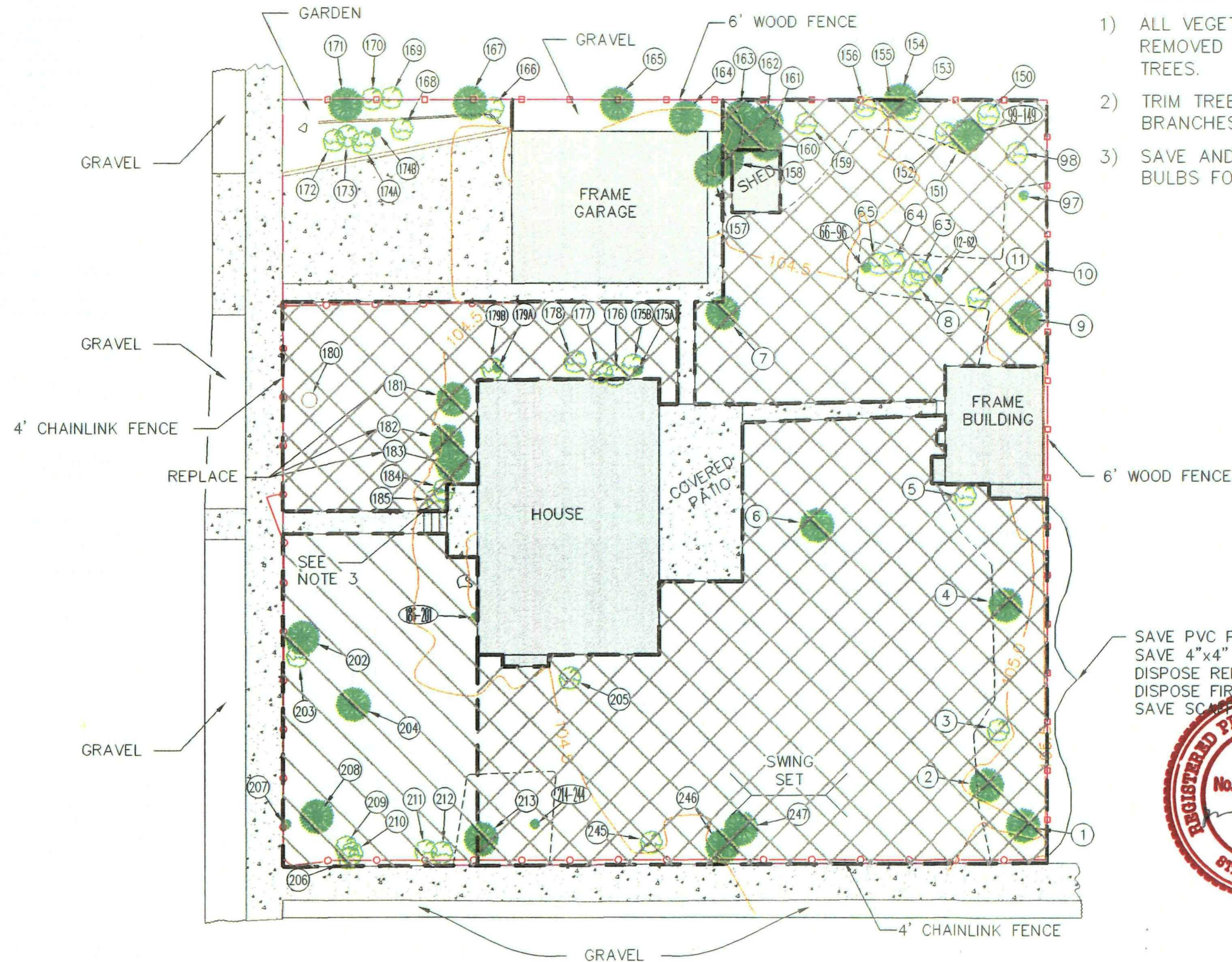
This notice will finalize the work in the above-referenced property with the exception, of warranty work as cited above. By signing this notice, you acknowledge that the removal and restoration at the property have been completed in accordance with the site-specific design report approved by the property owner prior to the start of work.

Signature: Angeline Kreger
Property Owner

Signature: _____
Property Owner

NOTES

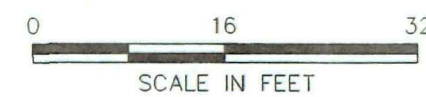
- 1) ALL VEGETATION WILL BE REMOVED EXCEPT LARGE TREES.
- 2) TRIM TREES, REMOVE DEAD BRANCHES.
- 3) SAVE AND BAG HYASINCE BULBS FOR HOMEOWNER.



SAVE PVC PIPE
SAVE 4"x4" LUMBER
DISPOSE REMAINING LUMBER
DISPOSE FIREWOOD
SAVE SCAFFOLDING BRACES



ASBUILT



NOTE: BASE DRAWING AND SITE SURVEY PROVIDED ANDERSON ENGINEERING, INC.

LEGEND

---	EXCAVATION BOUNDARY	⊗	WATER METER
- - -	APPROX. LOT BOUNDARY	GV	GAS METER
- - -	UNDERGROUND UTILITY	AC	AIR CONDITIONER
— OH — OH —	OVERHEAD UTILITY	⊙	LIGHT POLE
— ○ — ○ —	CHAIN LINK FENCE	⊕	UTILITY POLE
— x — x —	BARBED WIRE FENCE	⊛	SPRINKLER HEAD
=====	CONCRETE CURBING	⊙	SURVEY CONTROL POINT
① →	TREE	□	CONCRETE SURFACE
② →	SHRUB	□	BUILDING
③ →	FLOWER	□	GRAVEL SURFACE
□	6-INCH REMOVAL/RESTORATION AREA		
□	18-INCH REMOVAL/RESTORATION AREA		

ERI
ENVIRONMENTAL RECLAMATION, INC.

TITLE: **ANGELINE KREGER
8909 SOUTH 120 EAST
SANDY, UTAH 84070**

PREPARED FOR:	ASARCO		
DATE: OCTOBER 1998	PROJECT #: 98-10	SHT 1 OF 1	
DRAWN BY: JDL	DWG/FIG #: S0870AB.DWG	REV #:	
CHECKED:	SCALE: AS NOTED	DWG SIZE: D	